

OCT 21 2008

CLAIM AMENDMENTS:

1. (currently amended) A method for transmitting data within a communication system, the communication system comprising a communication media and a number of nodes connected to the communication media, the communication system having different operating modes, the modes comprising a time triggered communication mode and an event triggered communication mode, wherein, in the time triggered communication mode, in which the data is transmitted across the communication media within a first communication cycle comprising a number of time slots, each time slot being assigned to one or more nodes of the communication system, the first communication cycle being triggered by time, and~~having an event triggered communication mode,~~ the method comprising:

operating the communication system in the event triggered communication mode, said operating including transmitting the data across the communication media within a second communication cycle comprising a number of time slots, each time slot being assigned to one or more nodes of the communication system, said second communication cycle being triggered by an external or internal event.

2. (cancelled)
3. (cancelled) .
4. (previously presented) The method of claim 1, wherein one of the nodes of the communication system is defined as a master node which initiates said second communication cycle in conjunction with

3

a predetermined trigger signal.

5. (original) The method of claim 4, wherein said master node receives said trigger signal.
6. (original) The method of claim 4, wherein said master node generates said trigger signal.
7. (previously presented) The method of claim 4, wherein execution of said second communication cycle is suspended until said master node receives said trigger signal.
8. (previously presented) The method of claim 4, wherein execution of said second communication cycle is suspended until said master node generates said trigger signal.
9. (previously presented) The method of claim 4, wherein execution of said second communication cycle is suspended until a predetermined period of time has elapsed.
10. (previously presented) The method of claim 4, wherein said master node issues an event indication signal (EIS) upon receipt or generation of said trigger signal, the other nodes of the communication system being defined as slave nodes which receive said event indication signal and which resume execution of said second communication cycle upon reception of said event indication signal.
11. (previously presented) The method of claim 10, wherein said second communication cycle comprises a cycle gap into which said nodes enter to suspend execution of said communication cycle, wherein said master node issues said event indication signal and

said slave nodes receive said event indication signal to resume execution of said second communication cycle.

12. (original) The method of claim 10, wherein said event indication signal is used for synchronizing said slave nodes.
13. (original) The method of claim 12, wherein said event indication signal is defined as a low/high/low sequence, wherein a high/low transition is used as a synchronizing event for said slave nodes.
14. (original) The method of claim 12, wherein a first valid reception of said event indication signal by one of said slave nodes is used for synchronizing said slave nodes.
15. (original) The method of claim 4, wherein said trigger signal is generated in said master node.
16. (original) The method of claim 4, wherein said trigger signal is applied to said master node from a unit external to said master node.
17. (previously presented) The method of claim 4, wherein said second communication cycle comprises a static segment with time slots of a predefined size and in a predefined order.
18. (previously presented) The method of claim 4, wherein said second communication cycle comprises a dynamic segment with time slots for transmitting a variable number of frames of variable length and variable order.
19. (previously presented) A computer readable medium on which a computer program is stored for execution on at least one of a

computer and a microprocessor, wherein the computer program is programmed to execute the method of claim 1.

20. (previously presented) The computer readable medium of claim 19, wherein the computer program is stored in one of a read-only-memory (ROM), a random-access-memory (RAM), and a flash-memory.
21. (currently amended) One of a number of nodes of a communication system, the communication system being operable in different operating modes, the modes comprising having a time triggered communication mode and an event triggered communication mode, wherein, in the time triggered communication mode, in which the data is transmitted across the communication media within a first communication cycle comprising a number of time slots, each time slot being assigned to one or more nodes of the communication system, the first communication cycle being triggered by time, and, in the having an event triggered communication mode, the data is transmitted across the communication media within a second communication cycle comprising a number of time slots, each time slot being assigned to one or more nodes of the communication system, the second communication cycle being triggered by an event, the nodes being connected to a communication media for transmitting data among the nodes, the data being transmitted across the communication media within communication cycles, each communication cycle comprising a number of time slots assigned to one or more nodes of the communication system, the node comprising:

an input for receiving an external or an internal event indication; and

a communication cycle trigger for initiating a ~~second~~said

second communication cycle upon receipt of said event indication when said communication system is operated in said event triggered communication mode.

22. (currently amended) The node of claim 21, wherein said event ~~receiving means accommodate~~input accommodates a predefined trigger signal, ~~wherein said means for initiating said second communication cycle initiate~~ and said communication cycle trigger initiates said second communication cycle upon receipt of said trigger signal.

23. (cancelled)

24. (cancelled)

25. (cancelled)

26. (currently amended) A communication system comprising:

a communication media; and
nodes connected to said communication media, the communication system being operable in different operating modes having a time triggered communication mode and an event triggered communication mode in which data is transmitted among said nodes across said communication media within communication cycles, the modes comprising a time triggered communication mode and an event triggered communication mode, wherein, in the time triggered communication mode, data is transmitted across the communication media within a first communication cycle comprising a number of time slots, each time slot being assigned to one or more nodes of the communication system,

the first communication cycle being triggered by time and, in the event triggered communication mode, data is transmitted across the communication media within a second communication cycle comprising a number of time slots, each time slot being assigned to one or more nodes of the communication system, the second communication cycle being triggered by an event, each communication cycle comprising a number of time slots assigned to one or more nodes of the communication system, wherein said nodes comprise an input for receiving an external or an internal event indication and a communication cycle trigger for initiating a second communication cycle upon receipt of said event indication when said communication system is operated in said event triggered communication mode.

27. (cancelled)